

## WHAT IS CLAIMED:

1. An isolated polynucleotide selected from the group consisting of:
  - 5 (a) a polynucleotide encoding a polypeptide having an amino acid sequence of SEQ ID NO:2,
  - (b) a polynucleotide which is complementary to the polynucleotide of (a), and
  - (c) a polynucleotide that hybridizes with a polynucleotide of (a) or
- 10 (b) under stringent conditions.
2. The polynucleotide of claim 1 comprising the nucleotide sequence of SEQ ID NO:1.
- 15 3. A polynucleotide that is an expression vector comprising a polynucleotide of claim 1.
4. A host cell comprising the expression vector of claim 3.
- 20 5. A process for expressing a MraY protein of *Pseudomonas aeruginosa* in a recombinant host cell, comprising:
  - (a) transforming a suitable host cell with an expression vector of claim 3; and
  - (b) culturing the host cell of step (a) in conditions under which
- 25 allow expression of the MraY protein from said expression vector.
6. cDNA selected from the group consisting of:
  - (a) a polynucleotide encoding a polypeptide having an amino acid sequence of SEQ ID NO:2,
  - (b) a polynucleotide which is complementary to the polynucleotide of (a), and
  - (c) a polynucleotide that hybridizes with a polynucleotide of (a) or
- (b) under stringent conditions.

7. cDNA in accordance with claim 6 comprising the nucleotide sequence of SEQ ID NO:1.

8. An expression vector comprising the cDNA of claim 7.

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9. A host cell comprising the expression vector of claim 8.

10. A process for expressing a MraY protein of *Pseudomonas aeruginosa* in a recombinant host cell, comprising:

10 11. transforming a suitable host cell with an expression vector of claim 8; and

(b) culturing the host cell of step (a) in conditions under which allow expression of the MraY protein from said expression vector.

15 11. A probe for the detection of polynucleotides encoding *Pseudomonas aeruginosa* MraY protein, comprising at least 25 nucleotides of SEQ ID NO:1.

20 12. A probe in accordance with claim 11 selected from the group consisting of:

(a) a probe comprising a nucleotide sequence of SEQ ID NO:3; and

(b) a probe comprising a nucleotide sequence of SEQ ID NO:4.

25 13. A primer for the detection of polynucleotides encoding *Pseudomonas aeruginosa* MraY protein, comprising at least 25 nucleotides of SEQ ID NO:1.

30 14. A primer in accordance with claim 13 selected from the group consisting of:

(a) a primer comprising a nucleotide sequence of SEQ ID NO:3; and

(b) a primer comprising a nucleotide sequence of SEQ ID NO:4.

15. An isolated polypeptide comprising an amino acid sequence of  
SEQ ID NO:2.

16. A cellular extract comprising the polypeptide of claim 15.